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Remarks

The fourth non-final Office Action mailed August 8, 2006 allowed claims 11-14, 17-22, 24 and 32, rejected claims 1-6, 8, 10, 30, 34 and 35, and objected to claims 7 and 36. The Applicant's Attorney expresses his sincere appreciation to the Examiner for his continued efforts on this case.

The Applicant has hereinabove amended the language of claims 1, 7, 34 and 36. Independent claim 1 now generally features the recited position detector as *"configured to detect the latter motion pattern after spin-up of a disc, and wherein the former stationary position comprises a position of the transducer prior to said spin-up."* Support includes the language of allowed claim 11 and the routine of FIG. 1. Dependent claim 7 has been amended to better conform to amended claim 1.

Independent claim 34 now generally features *"wherein the former position of the transducer comprises a position prior to spin-up of a disc, and wherein the latter motion pattern is obtained after said spin-up."* Support includes the language of allowed claim 11 and the routine of FIG. 1. Dependent claim 36 has been amended to better conform to amended claim 34.

It is believed that these amendments are proper, do not introduce new matter and serve to place the application in proper condition for reconsideration and allowance.

Rejection of Claims Under 35 U.S.C. §102(e)

Claims 1-6, 8, 10, 30 and 34-35 were rejected as being anticipated by U.S. Patent No. 6,754,027 to Hirano et al. ("Hirano '027"). This rejection is respectfully traversed.

Hirano '027 at least fails to disclose *wherein the former stationary position comprises a position of the transducer prior to said spin-up,*” as now recited by claim 1. Hirano '027 generally discloses respective ramp unloading and loading operations to move a head 5 between a position adjacent a rotating disc 3 and a ramp structure 6. See e.g., Hirano '027, Abstract, lines 4-8. Each of these respective unloading and loading operations will be discussed in turn.

1. Ramp Unloading Operation of Hirano '027

During the ramp unloading operation of Hirano '027, The head 5 is “unloaded” from the rotating disc 3 so as to be moved onto the ramp structure 6. During this operation, the head 5 is first moved to a stationary reference position P1 over the rotating disc 3 and adjacent the ramp 6. See col. 8, lines 8-12; FIGS. 4 and 6. From there, the head 5 is moved to successive points P2-P7 along the ramp 6 using a speed control approach, in which, generally, the system tracks the distance from the reference position P1 in relation to integration of detected speed of the head 5. FIGS. 8 and 9; col. 8, lines 43-55.

A deceleration of the head 5 is initiated when a target position is reached (in this case, point P5), so that the head softly comes to rest against terminal point P7 of a parking area 6-1 of the ramp 6. Col. 9, lines 12-20 and lines 35-41; see also FIGS. 8 and 9.

While it appears that the ramp unloading operation of Hirano '027 commences with the head 5 at a stationary reference position P1, this is done so at a time when the head 5 is supported adjacent the spinning disc 3. See e.g., col. 12, lines 19-20. The ramp unloading operation of Hirano '027 thus at least fails to disclose “*wherein the former stationary position comprises a position of the transducer prior to said spin-up*” of the disc, as claimed.

2. Ramp Loading Operation of Hirano '027

The ramp loading operation of Hirano '027 is also deficient with regard to the subject matter of claim 1. During ramp loading, the head 5 is subsequently moved from the ramp 6 to the disc 3 so that the heads are "loaded" to the disc using generally the reverse process set forth above. See e.g., col. 13, lines 36-52 and FIG. 19. That is, during the loading operation, the system generally operates to move the head from point P7 to point P1 using a speed control approach, and distance values are determined in relation to integration of speed. FIG. 20 and col. 14, lines 1-4.

However, Hirano '027 does not appear to determine the actual starting position of the head 5 on the parking area 6-1 prior to spin-up, as claimed. As shown in FIG. 6, the parking area 6-1 of the ramp structure 6 has a relatively substantial lateral expanse. Even though the head 5 contacts the terminal point P7 at the conclusion of the unloading process, those skilled in the art will immediately recognize that the head 5 could be anywhere along the parking area 6-1 at the beginning of a subsequent loading process, including even adjacent retention point P5. This is further supported by the fact that Hirano '027 expressly contemplates an environment of a portable computer in which externally applied shocks can adversely affect the starting location of a head. See e.g., col. 1, lines 24-32.

During the loading operation, Hirano '027 recalls from memory the distance from P1 to P7 that was measured during the previous ramp unloading operation, and uses this as the corresponding reference distance during the subsequent loading operation. Col. 14, lines 1-16. Significantly, Hirano '027 initially moves the head 5 outwardly so as to begin the loading operation from P7 to P1 at the known reference location P7. See e.g., steps S31, S32 and S33 in FIG. 21 and col. 14, lines 27-33.

There is nothing in Hirano '027 that indicates that the loading operation commences prior to spin-up of the disc 3; indeed, those skilled in the art would view it to be far more likely that the disc 3 is spun up prior to commencement of the loading operation.

Hence, Hirano '027 is silent with regard to explicitly or inherently disclosing "*a position detector configured to determine a former stationary position of the transducer based on a latter motion pattern of the actuator obtained from application of a current profile of controlled variable magnitude to the actuator, wherein the actuator comprises a voice coil configured to provide a voltage to the position detector that includes a back-electromotive force component indicative of a movement of the voice coil across a magnetic field, wherein the position detector is configured to detect the latter motion pattern after spin-up of a disc, and wherein the former stationary position comprises a position of the transducer prior to said spin-up.*" as claimed by claim 1. Indeed, it appears that the present invention could be used in conjunction with the subject matter of Hirano '027 to better control the ramp loading operation of Hirano '027.

Accordingly, it is respectfully submitted that Hirano '027 fails to disclose the subject matter of claim 1. Reconsideration and withdrawal of the rejection of claim 1, and for the claims depending therefrom, are respectfully requested on this basis.

As Hirano '027 is believed to be similarly deficient with regard to the subject matter of independent claim 34, reconsideration and withdrawal of the rejection of claim 34, and for the claims depending therefrom, are also respectfully requested.

Allowable Subject Matter

Claims 11-14, 17-22, 24, 30, 32 and 34-36 were allowed, and claims 7 and 36 were indicated as being allowable if rewritten into independent form. The Applicant gratefully

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acknowledges this indication of allowable subject matter. It is believed that all of the pending claims are now in proper condition for allowance.

As noted previously, upon allowance of the case, the Applicant requests that claim 30 be advanced in sequence so as to appear with the other claims depending from base claim 1.

Conclusion

This is intended to be a complete response to the non-final Office Action mailed August 8, 2006. The Applicant respectfully requests reconsideration and allowance of all of the pending claims. Should any questions arise concerning this response, the Examiner is invited to contact the below signed Attorney.

Respectfully Submitted,

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